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ABSTRACT

Selected characteristics of the American educational system are briefly described. This paper is intended for the specific use of the German-American Educational Equivalency Project, a cooperative effort between educators of the Federal Republic of Germany and the United States to clarify certain aspects of their respective educational systems. The paper examines aspects of American education which have particular importance in programs of student exchange, but may be misunderstood by non-American educators. They include: (1) the philosophical assumptions underlying American education, (2) the organization and control of primary, secondary, and post secondary education, (3) the variety of types of institutions and the programs they offer, (4) methods of measuring student performance, including both grades and test scores, and (5) quality control mechanisms, such as accreditation. (Author/BW)

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DIVERSITY, ACCESSIBILITY, AND QUALITY

A Brief Introduction to American Education for Non-Americans

TM006 641

College Board

DIVERSITY, ACCESSIBILITY, AND QUALITY:

A Brief Introduction to American Education for Non-Americans

CLIFFORD F. SJOGREN

Director of Admissions, University of Michigan

College Entrance Examination Board, New York, 1977

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Revised edition, 1977

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PREFACE

This paper was originally developed to assist in bilateral discussions on the educational systems in the United States and the Federal Republic of Germany, which were begun in 1973. The purpose of these discussions was to determine, where possible, the comparability of degrees, courses, and diplomas between the two countries.

The project was developed by the College Board in cooperation with and funded by the Bureau of Educational and Cultural Affairs (CU) of the United States Department of State. Sanford C. Jameson, Office of International Education of the College Board, coordinated the activities of the project with Richard Straus, Director of the Office of Western European Programs of CU.

A committee was organized from the educational community in the United States to help participate in the discussions with representatives of the German educational community. Members of the committee were as follows: Stan Berry, Director of Admissions, Washington State University; G. James Haas, Assistant Director of Admissions, Indiana University; J. Boyd Page, President, Council of Graduate Schools; Albert G. Sims, Vice President for Programs and Field Services, College Board; and Clifford F. Sjogren, Director of Admissions, University of Michigan. The committee also involved the following United States government representatives: Charles C. Hauch, Chief, Comparative Education Branch, Office of Education; Mary Ann Spreckelmeyer, Acting Director, Office of Youth, Student and Special Programs, CU; and Raymond E. Wanner, Division of International Education, Office of Education.

Cliff Sjogren drafted this paper with the assistance of G. James Haas and Raymond Wanner and in consultation with the entire committee. The final review of the paper was held in February 1977 when the committee made minor additions. This edition represents the consensus of their feelings.

The paper is being reissued because it is believed that this brief description of American education would be useful in similar discussions with other countries and would provide useful insights into American education for educators, government officials, and others concerned with this subject abroad.

Sanford C. Jameson
College Board
June 1977

INTRODUCTION

The purpose of this paper is to describe briefly for non-Americans selected characteristics of the American educational system.[1] It is a working document for the specific use of the German-American Educational Equivalency Project, a cooperative effort between educators of the Federal Republic of Germany and the United States to clarify for each other certain aspects of their respective educational systems.

The paper examines aspects of American education that have particular importance in programs of student exchange, but which are frequently misunderstood by non-American educators. They include the philosophical assumptions underlying American education, its organization and control, descriptions of different kinds of institutions and the programs they offer, methods of measuring student performance, and quality control mechanisms.

It would be useful at the outset to underscore the extraordinary diversity and vitality of American education. Issues are continually debated, and educational change occurs frequently. Readers should recognize, therefore, that this introduction must be considered only as a point of departure for further discussions and reading. References are made throughout this paper to other sources that can also help the reader understand an unusually complex educational system.

Education in the United States might be characterized as diverse, comprehensive, reasonably democratic, and complex. Its diversity is in large measure due to the geographical vastness of the country and to the rich ethnic heritage brought by wave upon wave of immigrants. The educational needs of students on the Pacific coast may be significantly different from those of students 3,000 miles away on the Atlantic coast. And the needs of students in the heartland of the nation may be different from those of students on both coasts. Thus, legislative patterns of state and local control of education and an administrative tradition of flexible educational structures have proven to be felicitous in that they allow institutions to be responsive to regional needs as well as cultural and ethnic values and aspirations.

There is ease of access to most educational institutions in the United States,

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1. For the purpose of this paper, the terms "America" and "American" refer to the United States of America only.

and accommodation is made for individuals who may have lacked educational direction or motivation in the earlier years of their lives. The system assumes that its participants will utilize supportive assistance such as counseling and guidance services while at the same time exercise self-direction in such areas as career and academic program choices. The system provides for lateral movement, discourages "dropouts," approves of "stopouts," and is firmly committed to continuing and life-long education. Degree credit may be obtained by on-campus study, foreign study, external examinations, and various programs of independent study, including courses offered "on-the-job." Large numbers of citizens take advantage of the educational opportunities open to them. According to a recent U.S. Office of Education report, nearly one in three Americans were either students, teachers, or educational administrators.[2] In 1974, approximately 59 million students were enrolled in the nation's elementary, secondary, and post-secondary institutions.

Analysis of the United States Office of Education report indicates that Americans stand at the highest level of educational attainment in their history. "In 1974, men and women - 25 years of age and older - had an average schooling of 12.3 years; illiteracy had been reduced to about 1 percent; 63.3 percent of the population over 25 had completed a secondary school education; and 14 percent had completed 4 years of college."[3]

Although the process has not yet been completely democratized, substantial sums of money have been committed over the past decade to providing equality of educational opportunity for all.

According to another U.S. Office of Education report, there were 2,626 public and private institutions of higher education in 1971-72.[4] Slightly more than one-half (1,474) were private, although a large majority of students attended public institutions.

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2. U.S. Office of Education, Progress of Education in the United States of America: 1972-73 and 1973-74 (OE 76-19104). Washington, D.C.: U.S. Department of Health, Education and Welfare, 1975, p. 24.

3. Ibid., p. 1.

4. U.S. Office of Education, Education Directory, 1971-72 Higher Education. Washington, D.C.: U.S. Department of Health, Education and Welfare, 1972, Table 2.

Of the total number of institutions, 943 offer at least two but less than four years beyond secondary schools. Most of these institutions are the two-year community colleges. Seven hundred and fifty-two institutions offer programs up to the four- or five-year bachelor's degree, and 76 offer only the first professional degree.

Five hundred and forty-three institutions of higher education offer a master's degree or beyond, but less than a doctorate, and 312 offer the doctorate. The proportions of public and private schools offering advanced degrees are comparable.

The structure of American education seems well suited to a vast and pluralistic nation. Out of its experience, purposes and goals have emerged which the eminent educational historian R. Freeman Butts has seen in terms of a new quadrivium of academic discipline, social efficiency, individual development, and vocational competence, and a new trivium of freedom, equality, and justice.[5] Tensions sometimes exist because of the relative priority given to each of these goals, but the tension has for the most part been creative and constructive. The structure of education in the United States has managed to provide relevant learning experiences for the vast majority of Americans and at the same time to create an environment that allows considerable numbers of intellectually superior students to emerge and to gain international prominence among the world's scientific, economic, social, and political leaders.

THE ORGANIZATION AND CONTROL OF EDUCATION

Primary and Secondary Education

The responsibility for providing education on the primary, secondary, and post-secondary levels in the United States lies with the individual states. Historically, however, this responsibility has been delegated to local school districts for schools on the primary and secondary levels. These local districts support their schools and pay their teachers through local taxation supplemented by considerable state aid and some limited assistance, usually for specific purposes, from the federal government.

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5. R. Freeman Butts, "The Search for Purpose in American Education," College Board Review, No. 98, Winter 1975-76, p. 3.

School districts are of various sizes. Some are very small and include only one or more townships. Others are made up of entire counties, and some are even larger. Some large cities have decentralized their systems; that is to say they have divided them into two or more semiautonomous school districts. During the academic year 1972-73 there were 17,036 school districts in the United States. The number varied by state from a single district in Hawaii to 1,350 in the state of Nebraska.[6] Coordination among school districts is maintained through accreditation mandates, conditions of state and federal funding, and the common need to prepare students for higher education and employment.

Higher Education[7]

External Control of Institutions of Higher Education. Institutions of higher education, both public and private, receive their authority to function and to grant degrees from the state in which they are located. This authority is given either in the state constitution or, more often, by an act of the state legislature. The federal government exercises no direct control over the establishment of institutions or over the standards they maintain except in the case of those located in regions under immediate federal jurisdiction or those concerned with the preparation of career officers for the military. In specific areas such as enforcement of programs of the Civil Rights Act related to higher education, however, the federal government's influence can be strong.

Nearly all institutions receive some financial support from both state and federal government, although public institutions generally receive a substantially higher degree of support from public funds. Other sources of income for both public and private institutions are student tuition and fees, endowment earnings, and contributions from philanthropic foundations and individuals. There is however, no official or implied distinction in quality between public and private institutions. In this respect, it might be helpful to point out that Harvard University is a private institution and the University of California,

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6. U.S. Office of Education, Progress of Education in the United States of America: 1972-73 and 1973-74 (OE 76-19104). Washington, D. C.: U.S. Department of Health, Education and Welfare, 1975, p. 24.

7. This section relies heavily on W. Todd Furniss, editor, American Universities and Colleges, 11th edition. Washington, D.C.: American Council on Education, 1975, pp. 8-10.

Berkeley is public.

Internal Control and Administration of Institutions of Higher Education. The principal internal policy and financial decisions affecting colleges and universities in the United States are made by their boards of trustees (sometimes called boards of regents or, less frequently, boards of directors). The procedures for selecting members of the board are, in most instances, stated in the institution's founding charter, and depending upon the institution, members may serve either specific limited terms or may be appointed for life. Public institutions may have trustees who are elected or who have been appointed by the governor of the state; private institutions, nondenominational or religious, usually have representatives of the institution's founding body. In recent years, many boards of trustees, both public and private, have attempted to build into their boards wide representation of the diverse elements that make up the institution's academic and social environment.

The board of trustees usually delegates the day-to-day administration of the institution to a president or chancellor. The president, in turn, is usually assisted by one or more vice presidents. It should be noted that the college president has had a significant impact upon the development of higher education in the United States. Some of the larger universities delegate all strictly educational activities to a provost or academic vice president; in smaller institutions the officer in charge of academic affairs is usually called the dean of the college. Other administrative officers are the registrar, who is in charge of keeping official records; the director of admissions, who determines the eligibility of candidates for admission; the business officer, who is concerned with the overall financial condition of the institution; an executive dean or vice president for student affairs, who is in charge of all nonclassroom activity on campus; and a director of development, who is responsible for fund raising and community relations.

During the past ten years both faculty and students have gained significant representation in the process of college and university governance. Faculty members usually participate in this process through the faculty senate, departmental organization, committee work, and in some instances, collective bargaining units. Students have voting representation on many administrative and academic committees.

TYPES OF INSTITUTIONS

America's educational diversity is illustrated vividly by its wide variety of types of institutions. Moreover, classifications are difficult to make because of decentralized administration and control. For example, some elementary schools include grades one through eight whereas others may only go through grade six or seven. There are numerous institutions called "universities" that do not offer degrees beyond the master's and some that offer no degrees beyond the bachelor's. Also, there are some "colleges" that offer legitimate doctorates. Finally, there are a few prestigious degree-granting institutions in the country that are known as "institutes" (for example, California Institute of Technology and Massachusetts Institute of Technology). Care must be taken, therefore, to avoid generalizations about institutions based on their official names.

Figure 1 illustrates the estimated retention rate between the fifth grade and college graduation, and Figure 2 illustrates the structure of education in the United States.

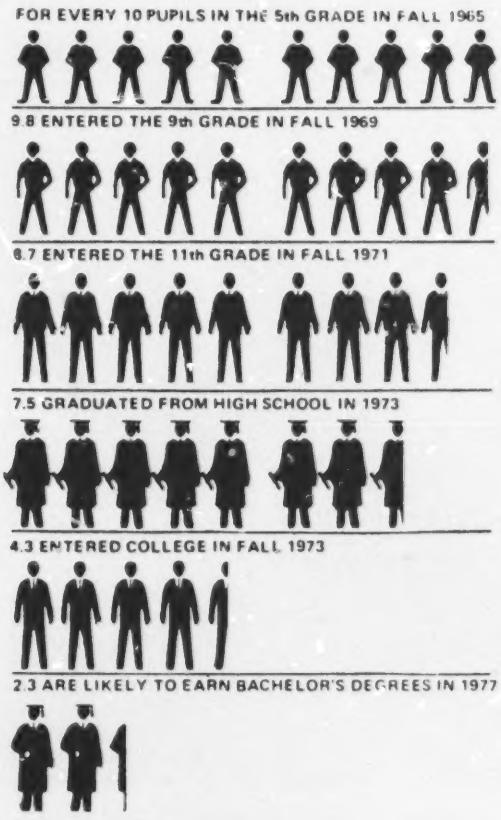
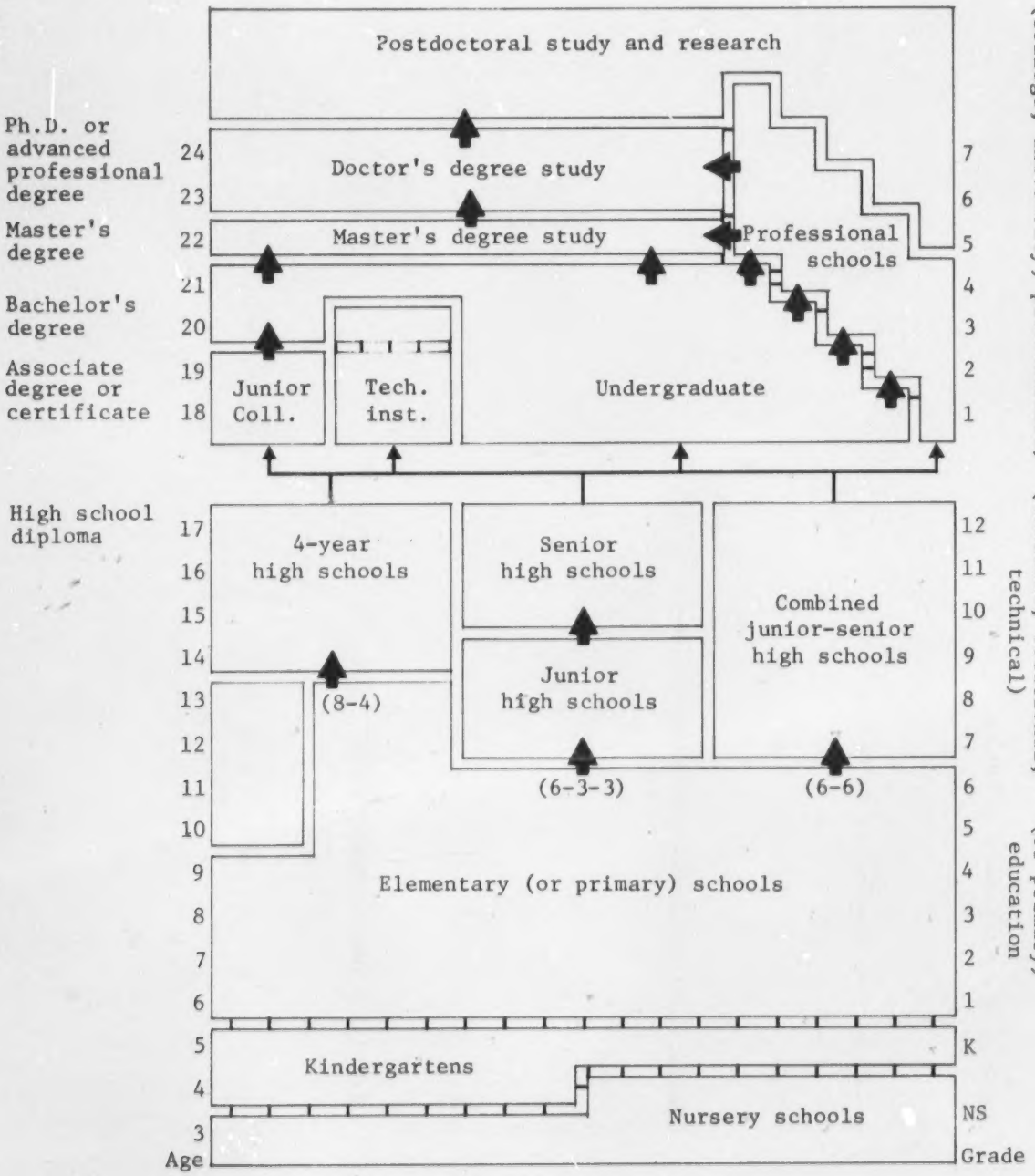

FOR EVERY 10 PUPILS IN THE 5th GRADE IN FALL 1965
9.8 ENTERED THE 9th GRADE IN FALL 1969
8.7 ENTERED THE 11th GRADE IN FALL 1971
7.5 GRADUATED FROM HIGH SCHOOL IN 1973
4.3 ENTERED COLLEGE IN FALL 1973
2.3 ARE LIKELY TO EARN BACHELOR'S DEGREES IN 1977

Figure 1. Estimated retention rates, fifth grade through college graduation: United States 1965 to 1977. From U.S. Office of Education, Progress of Education in the United States of America, 1973-74 (OE 76-19104). Washington, D.C.: Department of Health, Education and Welfare, p. 39.

Figure 2. The structure of education in the United States. From U.S. Office of Education, Digest of Educational Statistics, 1972 (OE 73-19104). Washington, D.C.: Department of Health, Education and Welfare, p. 33.



Elementary and High Schools

Completion of elementary school and high school (or secondary school) almost always requires at least 12 years of education. After an optional year in kindergarten, students enter grade one usually at the age of six years. Compulsory attendence regulations vary slightly among states, but students are usually required to remain in school until the age of 16. Students completing the full high school program usually graduate at the age of 17 or 18.

Several plans of dividing elementary school, junior high school, and secondary school education are used. Probably the most common today is the 6-3-3 plan (six years of elementary school, three years of junior high school, and three years of high school). Other plans include the 8-4, 6-2-4, 7-2-3, and 6-6 plans.

Two-Year Colleges

The community college is the most common two-year institution of higher education. Public community colleges usually offer academic programs suitable for transfer to four-year institutions, and terminal technical and vocational courses. Students may complete the first two years of preprofessional studies, for example in preparation for medicine, law, or business, in two-year institutions. These public institutions usually serve local populations within specific areas, such as one or more school districts or one or more counties. Fees are minimal and residence halls are rare because the institution serves primarily a commuting population.

There are a few private two-year colleges. Graduates of these institutions are generally prepared to transfer to four-year colleges and universities for completion of their academic programs.

Four-Year Liberal Arts Colleges

The primary role of liberal arts colleges is to offer programs of general undergraduate education. These programs include studies in the humanities, social sciences, and the physical and natural sciences, as well as up to four years of preprofessional studies. The liberal arts college offers courses leading to four- or occasionally five-year bachelor's degrees only and are almost always nonpublic. In recent years liberal arts colleges have been placing increased emphasis on preparation of students for graduate and professional school enrollment. Major universities maintain undergraduate liberal arts programs that in

many ways are comparable to the academic programs of four-year colleges.

Other Four-Year Colleges

There are numerous state and private four-year colleges that offer only special programs or offer special training along with liberal arts. Many of these institutions were formerly teacher-training colleges that expanded their course offerings. Credit from these institutions in appropriate programs is usually recognized by universities for admission into graduate and professional studies.

Universities

Universities are generally defined as institutions that offer both undergraduate education (postsecondary education leading to the bachelor's degree) and graduate education (post-bachelor's-degree education). Such institutions offer the master's and doctor's degrees. They may also offer professional programs such as medicine, law, and engineering. Students may complete all or part of their pre-professional training at the undergraduate level in the university, or in other institutions.

Other Institutions

There are a number of types of institutions that, although important as educational facilities, do not normally enroll students seeking academic training. These institutions include, but are not limited to, secretarial colleges or institutes, trade and vocational schools, some adult education and extension services, and certain health-related training programs. Some of these schools are profit-making, or proprietary, institutions. Many of these schools, however, would be the school of choice for those wishing to be trained in specific trades or vocations. The better institutions are formally accredited by appropriate accrediting agencies although the work completed and any degrees or credits granted are not normally acceptable for transfer to further work in established degree-granting colleges and universities.

PROGRAM DESCRIPTIONS

High School Diploma

The comprehensiveness of education in the United States is reflected in its high schools. Normally students are expected to complete a minimum of 16 academic, or Carnegie, units during the final four years. A unit equals one hour per day

per five-day week for 36 weeks. Typically, students enroll in 5 or 6 courses each semester, accumulating 20 or more units in grades 9 through 12. Within the 16-or-more-unit requirement, a student selects one or two "majors" and one or two "minors." A major is generally three or more units in a subject area such as English, mathematics, social studies, or German, and a minor represents at least two units in another subject area. Students may also satisfy major and minor requirements in vocational or technical courses such as commercial studies, industrial arts, and home economics, although only a small number of those courses are normally elected by students seeking admission to selective postsecondary institutions.

In large high schools it is not unusual to find between 20 and 40 offerings of English, with prerequisites for entrance to many of them based on demonstrated abilities of the students. Standard titles of such courses include English Composition, American Literature, and Creative Writing, but often English credit will be earned in courses with titles such as Mass Media, Argumentation, Contemporary Authors, Journalism, Modern Readings, Black Literature, Humanities, and Radio Speech. Likewise, social studies credit may be given for courses in Social Problems, Humanities, Communism, History of Minorities in the United States, Asian Studies, and Contemporary Issues. Generally, courses in the natural and physical sciences, mathematics, and foreign languages are designated with standard titles.[8]

Evaluators of American high school diplomas should be aware of the varying standards both within and among high schools. The diploma itself is not necessarily a demonstration of satisfactory ability or of suitability for study at the higher-education level. It is nearly always awarded to students who remain in the system for 12 years, and students are rarely asked to leave school. Importance, therefore, must be attached to a number of other factors including the following: (1) quality of courses selected; (2) quality of the high school; (3) grade-point averages; (4) class rank; and (5) standardized-examination scores. Items 3, 4, and 5 will be discussed in the next section. Items 1 and

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8. For additional information on course titles, see U.S. Office of Education, Patterns of Course Offerings and Enrollments in Public Secondary Schools, 1970-71 (OE 74-11400). Washington, D.C.: U.S. Department of Health, Education and Welfare, April 1974, p. 25.

2 will be discussed here.

Clues about the quality of the courses selected can often be obtained from the school or from the student. Courses that have been designated as "college preparatory," "honors," "enriched," "accelerated," or "advanced" are usually those reserved for the best students. Although college-preparatory classes might include 50 percent or even more of all classes offered, the other designations noted above are normally reserved for the most demanding 10 or 15 percent of the course offerings. Furthermore, serious motivated students usually elect such courses as advanced mathematics, chemistry, physics, and foreign language, whereas less academically motivated students will usually avoid all or some of those courses.

Increasingly, students have occasion to enroll in programs of independent study. Other alternative programs are also becoming more common. Because of the variety of plans and levels of quality found in those programs no attempt will be made to describe them here. It is sufficient to state that they should be looked at carefully, and students seeking advanced training should be neither accepted nor rejected without a careful evaluation of all their previous educational experiences.

Significant differences in quality exist among high schools. Some of these differences are obvious, others are subtle. It must be remembered, however, that high schools are not and should not be judged only on the basis of their college-preparatory program. Many communities reflecting local needs quite properly choose to enrich the vocational and technical offerings, sometimes at the expense of their college-preparatory programs.

The General Education Development Test (GED) is a widely accepted high school equivalency certificate. The GED yields both raw and percentile scores in five general areas of knowledge and is frequently presented by applicants for admission and employment who left high school before completing diploma requirements. It is considered by most private and government employers as the equivalent of a high school diploma.

Finally, the high school diploma does not in itself guarantee admission to all or even most colleges and universities, although it is frequently one of several criteria for admissions.

Associate's Degree

An Associate of Arts (A.A.) or the Associate of Science (A.S.) degree is usually earned at a community college after two years of study. In many instances it represents the same level of educational achievement as the first two years in a four-year college or a university. Some A.A. and A.S. degrees may be considered valid educational credentials that can be applied toward meeting bachelor's degree requirements; other A.A. and A.S. degrees may be terminal and not appropriately applied to further study. Frequently students enroll in a local community college with specific plans to enroll in a preselected four-year institution and with the assurance that all credit will be transferable. Some examples of terminal courses are aviation technology, food distribution, secretarial science, inhalation therapy, automobile mechanics, and landscape technology. Courses taken for these programs are sometimes accepted at four-year institutions.

Community colleges vary in size, curricular emphasis, and purpose. There is little question, however, concerning their impact on education in the United States. Approximately one-half of all students entering higher education for the first time enroll in public community colleges. Included in the nearly 1,000 two-year colleges in the United States are several with enrollments of over 10,000 students.

As with nearly all diplomas and degrees in the American educational structure, the Associate of Arts degree represents a wide range of completed course work and achievement standards. With proper course distribution and an adequate quality of achievement, the Associate of Arts degree is considered the equivalent of the first two years at a college or university. Above-average student performance sometimes results from minimal competition due to open-door admissions policies practiced by most community colleges.

Bachelor's Degree

The bachelor's degree normally requires four years of academic study beyond the high school diploma. In recent years accelerated learning plans, credit by examination, year-round study plans, and other innovations have enabled a few students to complete the program in less than four years.

Generally there are four fundamental educational requirements for the bachelor's degree, each occupying approximately one-fourth of the student's course selections. They are (1) a major (or a concentrated area of study), (2) general

education (usually includes language arts, sciences, social sciences, humanities), (3) supporting courses that relate directly to the major area, and (4) electives (courses selected by the student, often in subjects not related to the major, to fulfill the total credit hour requirement). Increasingly students are assuming more responsibility for course selection, although concentrations must be approved by the appropriate department and must conform to the general education requirements that are usually set by the college or university.

The two most common bachelor's degrees are the Bachelor of Arts (B.A.) and the Bachelor of Science (B.S.). The former may require more general education requirements in the language arts (proficiency in a foreign language is usually mandatory) and humanities whereas the latter usually places greater emphasis on the sciences. Other common bachelor degrees include the B Ed. (education), the B.F.A. (fine arts), the B.Mus. (music), and the B.B.A. (business administration). The B.Arch. (architecture) is often a five-year program, and the B.D. (divinity) and the LL.B. (law) are professional degrees that in most institutions require a B.A. or a B.S. for admission.

Students normally choose their majors before the third year. They may be selected in the traditional disciplines such as chemistry, economics, mathematics, English, or history. They may also be selected from such areas as journalism, electrical engineering, classical studies, and physical education. In recent years there has been a rapid development of interdisciplinary programs in which students draw courses from two or more departments to form majors. Examples include East Asian studies, international relations, and environmental studies. In the example of environmental studies, a student will enroll concurrently in courses in liberal arts, engineering, natural resources, and architecture. A degree in environmental studies could lead to a career in environmental planning and urban development. Occasionally students will have a double major by electing two areas of concentration.

In a bachelor's degree program, a student usually enrolls in four or five courses, or 13 to 17 credit hours, each term. Most institutions follow the semester system, which consists of two 14- to 18-week terms each academic year. Institutions on semester plans usually offer a "fraction" of a semester (one-half or two-thirds time) during summer months. The trimester system consists of three equal terms during the calendar year, and each term is equal in educational value

to a term in the semester system. The quarter system consists of four terms of about 12 weeks each. Typically, students enroll in three quarters each academic year. A quarter-credit hour carries the value of two-thirds of a semester hour (for example, nine quarter-credit hours equal six semester-credit hours).

Normally, 120 semester-credit hours, or eight semesters, are minimum requirements for a degree in a semester or trimester calendar system. One hundred and eighty credit hours are normally the minimum number required of students graduating from an institution employing a quarter system. Many bachelor's degree programs (for example, pharmacy, engineering, and architecture) require four-and-a-half or five years (or 150 semester-credit hours) to complete.

As a general guideline, students are expected to spend from two to three hours outside of class for every hour in class. Required laboratory time is in addition to the credit hours assigned to a course.

Educational experiences are measured in terms of the credit hours attempted and earned regardless of the academic-year pattern. Credit earned in summer or other special sessions has the same value as credit earned during traditional terms. Also, credit earned by a student who takes a part-time academic program, usually from one to three courses a term, is recognized in the same way as credit earned by a full-time student.

The B.A. honors degree designates a high degree of quality and does not imply additional course work. Standards for honors degrees vary among institutions, but they are usually awarded to students who place in the top 10 to 20 percent of their graduating classes. Sometimes honors degrees are awarded to students who achieve certain grade-point averages. The terms "magna" and "summa" are usually used to designate honors degrees.

Evaluators of American bachelor's degrees should in every instance make an analysis of the courses completed, the grades obtained (especially in the student's major), and other factors such as the quality of the institution and the career objective of the student.

Master's Degree[9]

A master's degree requires at least one full academic year of course work beyond the bachelor's degree. Frequently a thesis is required, and occasionally a

9. For a comprehensive description of the master's degree, refer to: The Master's Degree: A Policy Statement, published by the Council of Graduate Schools, One Dupont Circle, Washington, D.C. 20036.

comprehensive examination of general knowledge and proficiency in a foreign language is also required.

Master's degree programs vary considerably among the approximately 900 institutions that award them. The number of degree designations is very large, but for the most part the degrees are Master of Arts (M.A.), Master of Science (M.S.), or professional designations, such as Master of Nursing (M.Nurs.), or Master of Landscaping Architecture (M.L.A.). Programs leading to the degree usually require one or two years of advanced study, based upon graduate courses, seminars, and colloquiums, and in many cases, research or independent creative scholarship. Frequently, particularly in the sciences or engineering where Master of Science is the degree choice, a thesis based upon research is required, and in the majority of cases, an oral or written (or both) examination is required. The Master of Fine Arts (M.F.A.) is considered the final degree in the studio and performing arts. Unlike most master's degree programs, a large portion of the requirements is based on demonstrated ability in the chosen field. Requirements may differ not only among institutions but among disciplines within an institution as well.

Completion of a satisfactory master's program is often prerequisite to entering into study at the doctoral level. Master's degrees may be earned in as many as 100 disciplines in large public universities. For the most part these will be either Master of Arts or Master of Science degrees, and there is no consistent way to distinguish between the two. The master's degree marks the first specialization beyond the bachelor's and is required for entry into many professions or teaching positions in secondary schools, junior colleges, and at the entry level in colleges and universities.

Usually one-half to two-thirds of the course work will be in the major subject. The remaining course work will consist of supporting courses and electives. The thesis is usually based on a limited amount of research, but as a minimum could be based on an acceptable application of research techniques that develop new data and information. Quality of writing is evaluated as is the ability of the writer to present and effectively examine the topic.

Doctor of Philosophy Degree[10]

A Doctor of Philosophy (Ph.D.) degree requires a minimum of three years of full-time study but often takes up to five or six years to complete. The average amount of time is approximately four-and-a-half years, of which the earned master's usually accounts for one year if the course work is applicable. Work at the doctorate level is highly individual and performed under close supervision of a chairperson with advice, general supervision, and evaluation being provided by a committee of at least two other professors from the candidate's area of study and one more from a supportive field in which the candidate is required to demonstrate competency.

Candidates usually prepare for their preliminary or qualifying examinations during the later stages of their course work. Preliminary examinations measure the candidate's general knowledge of the field as well as his or her mastery of the particular discipline pursued by the student; these examinations indicate preparation for independent and original work designed to extend the student's knowledge in the field. A Ph.D. degree is almost always a research-oriented degree.

A proposal for a dissertation is prepared by the student and presented to the committee for criticism. Students are often required to rewrite parts or all of their proposals several times before the committees are satisfied. Proposals include a statement of the problem to be examined, hypotheses to be investigated, a review of the literature on the subject, and the investigative methodology to be applied.

When the dissertation is completed the student presents and defends it before an examining committee of the graduate faculty. The vast majority of students who take these "orals" successfully complete the requirement. This high success rate can be attributed to the voluntary and involuntary attrition that occurs at various earlier stages. In fact, only a small number of students admitted to Ph.D. programs actually receive degrees. Careful and critical counseling, along with the continuing rigorous application of standards, yields

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10. For a comprehensive description of the Doctor of Philosophy degree, refer to The Doctor of Philosophy Degree published by the Council of Graduate Schools of the United States, One Dupont Circle, Washington, D.C. 20036.

highly qualified degree recipients. As at all other levels of American education, the standards of the institution along with other qualitative indexes suggests that Ph.D.'s have varying values. At the doctorate level, however, the differences diminish significantly.

Publication of the completed dissertation is no longer required, but publication of an abstract of the dissertation is required. Normally dissertations are on file in the library of the institution at which the degree was awarded.

Honorary doctorates are sometimes awarded to men and women of some distinction. Although such doctorates are not acceptable as scholarly credentials, a holder is recognized symbolically as worthy of the highest academic honor.

Professional Degrees[11]

Students who seek admission to professional schools such as medicine, law, business, and dentistry usually do so after completing their bachelor's degree. However, some professional programs may be entered prior to the completion of the bachelor's degree. Admission to most professional degree programs is extremely competitive. It is not unusual for some of the prestigious professional schools to receive dozens of applications for each place available.

The quality of the previous institution attended, the grades received, and the scores on national standardized professional school aptitude tests are the major criteria for admission. Certain prescribed courses are required before consideration for admission to professional schools is given. Professional programs may require up to four years beyond the bachelor's degree, with internships sometimes extending the time required by one or two years.

Admission to medical schools is seldom granted to candidates with less than a bachelor's degree, although a limited number of institutions are experimenting with programs that integrate premedical and medical study. After a minimum of three years in medical school, a student must satisfactorily complete the internship requirement to qualify for the medical degree (M.D.). Frequently students continue formal study in a specialized area of medicine before entering residency, the final phase of the program.

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11. For a comprehensive description of professional degrees, refer to The Professional Doctorate published by the Council of Graduate Schools of the United States, One Dupont Circle, Washington, D.C. 20036.

Law schools normally require a bachelor's degree for admission to the three-year program. As is true with medical study, an external examination is required, and competition for admission to most programs is severe. The first degree is the Doctor of Jurisprudence (J.D.), although recipients of the J.D. are seldom referred to as "doctors."

Holders of professional degrees in dentistry (D.D.S.), law (J.D.), medicine (M.D.), and veterinary medicine (D.V.M.), must in all cases pass state examinations before they are permitted to practice their profession. Holders of the D.D.S., M.D., and D.V.M., are referred to as "doctor." Those who wish to follow academic careers in these four fields often also earn the Ph.D. degree.

The Doctor of Business Administration (D.B.A.) is the highest academic degree in business and is normally sought by those preparing for teaching and research careers in the field. The D.B.A. may be considered on the same level as the Ph.D.

It is not unusual for holders of professional degrees to return for Ph.D.'s in order to qualify for a teaching position on professional school faculties. Other professional degrees include those in social work, public health, education, dentistry, veterinary medicine, and library science, as well as those at the bachelor's degree level described earlier (architecture, divinity, etc.).

Foreign students are seldom admitted to medical schools and rarely to law and dentistry programs. In other professional degree programs, including business administration, the competition for places among foreign students is very keen.

Special Degrees Related to the Medical Field

Two examples of degrees related to the medical field are those in podiatry and chiropractic. Some of the work may be taken at a university. The degrees allow the practitioner to treat only a designated part of the body. These programs require fewer years of preparation and are not viewed as equal to the M.D. State licensing may be involved.

Special Students

Most American colleges and universities allow students who are not candidates for degrees to take courses. Reasons for this "unclassified" or "special student" status are many and varied and include the following: (1) for self-enrichment; (2) for certification requirements for teaching or some other profession; (3) to demonstrate readiness to be favorably considered as a degree-seeking candidate;

(4) to remove deficiencies for graduate or professional school admissions consideration; (5) because employment status precludes full-time study; and (6) for specific training programs for foreign students.

Sometimes credit earned as a special student will apply to degree requirements when and if a student applies and is accepted as a degree-seeking candidate. Because special students do not normally have their previous educational credentials evaluated in detail, there can be no guarantee that their course work is appropriate for their educational goals.

Adult and Continuing Education

Most public and some private colleges and universities administer special educational programs for older students. Courses may be offered at extension centers throughout the geographic area that is served, such as state or community college districts. They may also be offered on campus during regular hours, or during evenings and on weekends. Most students elect only one or two courses each term. Students may elect courses that can be applied to a degree, or they may enroll in terminal courses that are generally not applicable to a degree program.

QUALITY CONTROL AND STUDENT EVALUATION

The proper evaluation of student performance in the American structure of education requires an understanding of the dynamics of the qualitative indexes that are used in the measurement of academic performance. In the United States the certificate earned is of secondary importance when compared with other factors that provide evidence of the student's qualifications for continued education or employment.

American education is characterized by a complex and sometimes bewildering array of grades, aptitude and achievement examinations, accreditation systems, enriched or honors courses, wide-ranging institutional standards (both among and within institutions!), voluntary and involuntary attrition patterns, varying admissions practices, class ranks, grade-point averages, personal recommendations, and extracurricular activities. One cannot generalize about quality of education based on size of institution, type of support, geographic location, or even by examining courses elected. Serious evaluators of student performance must become acquainted with the overt and implied "rules" used in the process. Symbols can be misleading. There are no shortcuts or easily applied formulas that can yield

a reliable quality index, and as a result, Americans as well as non-Americans frequently misjudge the level and value of a student's scholastic performance and academic and career promise.

Despite the complexity of the student evaluation structure, it seems to work. As has been stated, American education is decentralized and its many components enjoy various degrees of autonomy. This autonomy fosters diversity which in turn encourages educational administrators to provide relevant educational experiences for the students they are obliged to serve. Multiple measurement instruments and standards applied to student evaluation, therefore, are a complex but desired trait of American education.

Admissions Process

Admission to a college or a university in the United States is considered a privilege and not a right. Most institutions, however, endeavor to establish fair and reasonable admissions policies consistent with the mission and role of the institution. Colleges and universities with "open door," or nonrestricted, admissions usually employ an easily understood admissions process. Those institutions normally admit students soon after applications are received, keep admissions open until classes begin, and admit all secondary school graduates without regard to previous grades and test results. Institutions with selective admissions, however, often require applications six or more months in advance of the enrollment period, delay decisions until the entire applicant group can be evaluated, and place varying degrees of importance on grades, examinations, and other factors.

Students seeking transfer from one institution to another must have a transcript of courses and grades sent to the admitting institution. The original academic record remains in the registrar's office of the institution where the grades were earned. An official transcript, an exact copy of the original record, contains the signature of the registrar, or some other official, and usually a raised seal of the institution. Because the original record is not released by the institution, it is usual to accept official transcripts for educational and employment purposes. The student can easily have a transcript sent directly to an institution or agency from each institution previously attended, including secondary schools.

Among the factors influencing a student's choice of a college or university is the financial cost that must be borne. In most private and public institutions

students pay tuition (or course fees) and room and board. Additional funds are required for books, supplies, laundry, travel, and miscellaneous expenses. Generally, tuition costs range from $200 to $1,000 per academic year for in-state residents in public institutions. Out-of-state students (or out-of-district community college students) are usually assessed considerably higher tuitions, ranging from 50 to 300 percent higher than the costs for in-state or in-district students. Tuition costs at private institutions generally range from $1,000 to $5,000 per academic year for all students; room and board costs, as well as other expenses, generally range between $1,000 and $2,000 each academic year. Generally, foreign students pay out-of-state fees.

Financial aid is normally allotted on the basis of demonstrated need, and public institutions give in-state or in-district students priority for aid. This aid is provided by institutions and state and federal governments through grants, guaranteed low-interest loans, and employment opportunities. Some campuses report that 50 percent or more of their students are receiving some form of financial aid.

Accreditation

Accrediting has been defined by the U.S. Office of Education as "the process whereby an agency or association grants public recognition to a school, institute, college, university, or specialized program of study which meets certain established qualifications and educational standards, as determined through initial and periodic evaluations. The essential purpose of the accreditation process is to provide a professional judgment as to the quality of the educational institution or program(s) offered, and to encourage continual improvement thereof."[12]

As was noted earlier, United States' institutions vary widely in the quality of their programs, and there is no centralized authority for educational matters. Although states assume a major responsibility for educational matters, standards are usually monitored and evaluated by various accrediting bodies. There are many recognized voluntary accrediting associations, and the reader is advised to obtain the U.S. Office of Education publication, Accredited Post-secondary Insti-

12. U.S. Office of Education, Nationally Recognized Accrediting Agencies and Associations: Criteria and Procedures for Listing by the U.S. Commissioner of Education and Current List. Washington, D.C.: U.S. Department of Health, Education and Welfare, June 1975, p. 8.

tutions and Programs, 1972, (OE 73-17000), U.S. Department of Health, Education and Welfare, Washington, D.C., 1972. That publication lists all of the accrediting agencies, both general, or institutional, and specialized, recognized by the U.S. Commissioner of Education. During 1975 the commissioner's office recognized the six regional postsecondary, four secondary, and one elementary accrediting associations as well as 49 national specialized accrediting agencies. The publication, "Credit Given," published by the American Association of Collegiate Registrars and Admissions Officers, 1 Dupont Circle, Washington, D.C., 20036, outlines credit-granting practices of a major institution in each state.

The procedure for accrediting a higher educational institution typically involves five steps: (1) the establishment of standards; (2) an institutional self-study in which the institution's performance is measured against the established standards; (3) on-site evaluation by a team of outside educators selected by the accrediting agency; (4) publication of the fact that the institution met the standards; and (5) periodic reevaluation of the institution's programs.[13]

Probably the most visible purpose of accreditation is to enable students to move freely from one accredited institution to another (although the student may sometimes lose credits in the process). Further, state and professional certification regulations usually include stipulations that candidates must complete their training in accredited institutions. Financial aid, from both the government and private sources, is usually awarded only to those students who attend recognized institutions.

Accreditation, especially of the specialized sort, does not guarantee that all, or even any, credit can be applied to an academic program. Recognized accrediting agencies oversee such areas as cosmetology, bible college education, trade and technical education, and respiratory therapy, and much of the credit earned is not appropriate for many academic degree programs.

There are a number of "degree mills," profit-seeking organizations that require students to do minimal work to be awarded a "degree." Laws are lax in some states, and organizations like these are difficult to control. Many of them administer courses solely by mail, whereas others actually send the diploma by return mail on receipt of a fee. Such organizations damage the image of American

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13. Ibid., p. 2.

education, and caution should be exercised in accepting degrees or other forms of certification from unknown institutions. Usually correspondence with a senior university in the state in which the "unknown" institution is located will yield the accreditation status of the institution. The publication referred to earlier in this section, Accrediting Post-secondary Institutions and Programs, 1972, may also be helpful.

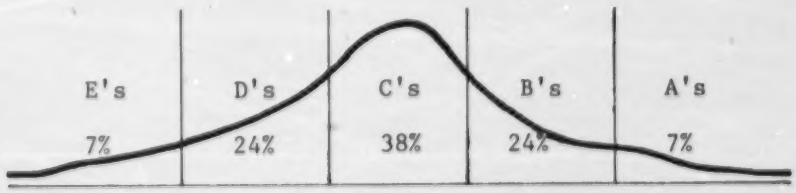
Assessing and Recording Student Performance

Course grades, or marks, are the primary instruments used in the evaluation of a student's academic performance. In various forms they are issued to students from early elementary school through graduate school. In secondary and post-secondary institutions, grades are recorded on the student's permanent record at least twice each academic year (three times in institutions employing quarters instead of semesters). Grades are accumulated to determine the grade-point average (GPA) at the conclusion of each major segment of a student's education (high school, bachelor's degree, master's degree, etc.).

Thus, it is not only the level of the diploma or the degree itself that must be considered for academic or job placement, but also the quality of academic performance. Course grades and cumulated grade-point averages are a convenient guide to determining relative levels of achievement.

Most secondary and postsecondary institutions in the United States use letter grades to designate the quality of achievement. The five categories with brief descriptions follow: An A represents consistently high performance and originality, a B indicates clearly above-average work, a C indicates average performance, a D represents minimally passing work (frequently unacceptable for transfer credit), and an E or F indicates unsatisfactory performance, or failure. Distribution of grades by an institution or an instructor is important because the grade assigned is the sole responsibility of the instructor. The bell curve in Figure 3 forms the basis for the normal distribution of letter grades.

Figure 3.



During the past decade there has been a gradual but significant inflationary trend in grading. It is not unusual to find substantially more A's and B's than D's and E's, especially in the strong secondary schools and the colleges and universities with selective admissions standards.

Most institutions compute grade-point averages by assigning four points for an A, three points for a B, two points for a C, and one point for a D. The points are then multiplied by the number of credits (hours) or units represented by that grade. The total number of points are then divided by the total number of credits attempted (including failures) to establish the grade-point average.

An example of this computation is illustrated by a typical first-semester colleges student's schedule:

Course	Credits (hours)	Grade	Points
English 123	4	C	8
Chemistry 105	4	A	16
Economics 110	2	E	0
German 201	3	B	9
Psychology 170	3	A	12
	16		45

45 honor points ÷ 16 hours attempted = 2.81 GPA

College and university students are usually expected to maintain at least a 2.00 GPA to remain in good academic standing. One semester of less than a 2.00 GPA might result in academic probation, and an additional semester of poor performance might result in dismissal. Public high schools normally permit students to remain in school regardless of their performance although most require a 1.00 GPA (D average) as the minimum standard for the awarding of the diploma.

Some institutions award numerical grades, but the wide variety of meaning of the grades defies generalizations. Frequently an institution will enclose an information sheet describing the grading system and the distribution of grades. Some secondary and postsecondary institutions employ narrative evaluations of students, a practice that, because it lacks standardization, confounds many U.S. admissions personnel as they seek the best-qualified and the most-deserving students for their campuses.

The high school percentile rank (HSPR), or class rank, can yield insight into the real meaning of a student's GPA. If a student presents a high GPA

(3.50) and a HSPR at the 75th percentile, it would suggest that 25 percent of the students had B+ averages or better. Care must be taken, however, to ascertain the degree to which honors, or accelerated courses were "weighted" to allow adjustments in either the GPA or the HSPR. If the school does not provide this information, the evaluator should specifically request the information. Class rank is frequently given as raw numbers only (for example, 38 in a class of 473) and the evaluator must convert it to a more usable HSPR (92nd percentile). Colleges and universities seldom provide class ranks of their students.

In some institutions some or all courses are evaluated on a pass/fail basis instead of traditional grades. The main purpose of the pass/fail scheme is to encourage students to explore disciplines they might have avoided to protect a GPA. Most U.S. institutions consider a "pass" as at least a C grade and recognize the credit. Other institutions employ various adaptations of the pass/fail plan, such as pass/no entry (failures not recorded), honors/pass/fail, and simply credit/no credit. Pass/fail grading is controversial because of competitive admissions in many graduate and professional programs. Those schools generally place greater emphasis on standardized examinations in the absence of traditional grades.

Other Admissions Considerations

American education provides ways for intellectually gifted students to move ahead of their grades or age groups for the purpose of increasing their learning interests and skills. From the comprehensive high schools through college and university, highly qualified students are usually encouraged to elect those courses that are most academically challenging. Prior to enrolling in advanced courses, a student's educational competence must be demonstrated through testing or previous academic performance. Some students are able to complete their elementary and secondary school requirements in less than the standard 12 years. Moreover, bright and academically aggressive students sometimes complete their collegiate programs in less than four years. This acceleration is made possible by recent innovations that have taken good advantage of the flexible nature of American education.

High schools offer honors, or enriched, courses for those students who might benefit from them. Those courses usually enroll only the best students and many utilize college textbooks and instructional methods. Honors programs at the

college level offer special incentives for academically talented students, for example selected library privileges, individualized curriculums, smaller classes, and tutoring. Evaluators of students who have completed honors or enriched courses should recognize the higher level of education that has generally been experienced by those students.

Letters of recommendation can be useful in student evaluations. Although most tend to be general and consistently positive, some will provide insights into a student that might otherwise be overlooked. Occasionally writers of recommendations bring attention to some unusual circumstance in the student's background that may have contributed to unsatisfactory performance, for example illness, family conflicts, unfair instructors, or reasons for English-language problems. Letters of recommendation may assume a significant importance for a student who is seeking admission to a private institution or a public or private professional school or graduate program. Recent federal legislation has had an effect on the practice of requiring letters of recommendation. The Family Educational Rights and Privacy Act of 1974 (the Buckley Amendment) gives students the right of access to their educational records unless they specifically waive the right. Although students may not remove letters they feel are damaging, they do have the right to add comments in which they can express their point of view. Applicants for admission are not included in the amendment, and some institutional staffs destroy recommendations after the admission decision has been made.

Continuing Evaluation of Student Performance

A unique feature of education in the United States is the frequent and periodic evaluation of student performance. These evaluations are done by the instructional staff through grading, examinations, and narrative reports. Students in high schools are normally able to assess the quality of their educational progress at any time during a semester through routine feedback from instructors. Test results, grades on theses and book reports, and the quality of their contributions to class discussions, give students tangible evidence of their progress. This system also operates at the college level to a lesser extent.

A major part of the responsibility to continually assess individual strengths and weaknesses in performance rests with each student. At the college level, it is likely that the number of students who voluntarily leave the institution is greater than the number who are asked to leave because of academic problems. A

student's decision to leave is not necessarily a face-saving act, but rather the result of a realistic examination of past performances, current progress, and future goals. Students who leave an institution may begin employment, enter military service, or they may enroll in institutions that are less demanding or that offer courses in other areas of interest. The flexibility of American education allows for, and indeed encourages, student-initiated adjustment of educational goals, but the student must assume a substantial amount of the responsibility for making sound choices. High schools and colleges provide counseling and guidance services to students so that each individual can make accurate assessments of his or her interests, abilities, and potential for future academic training and job placement.

A major consideration of student evaluation and performance is the effect of institutional standards on student attrition and retention. Not surprisingly, the institutions with the highest admissions standards usually experience the lowest attrition rate. Voluntary and involuntary attrition at such institutions as Stanford University, Massachusetts Institute of Technology, Princeton University, University of Michigan, University of Chicago, and University of California, Berkeley may be five percent or less a year whereas open-door institutions, those with virtually no selectivity in admissions, may experience a 50 percent loss of students each year or more.

Continuing education and the return of students whose educations were interrupted are prominent characteristics of American education. A considerable amount of research has revealed that age and relevant life experiences are significant predictors of academic success, and institutions welcome these nontraditional students to their classrooms. These students are increasingly enrolling in programs in areas such as humanities, behavioral sciences, and economics, whereas older students used to return to college primarily for job upgrading in business, engineering, nursing, and other fields that require improvement in technical knowledge. The average age of college students is increasing significantly.

Students entering higher education in the United States should become familiar with the diversity of standards that exists among the institutions. Admission, therefore, is not the end but only a means to the end. Although some critics claim that American educators practice an "easy in - easy out" scheme, the process is much more complex than that. Institutions with relaxed admissions

requirements often maintain high academic standards. Ohio State University and the University of Kansas, for example, are obligated by state charter to admit all in-state students who hold high school diplomas (and older students without diplomas). Yet graduation from those institutions could represent a level and quality of performance comparable to institutions with more rigorous admissions requirements. Attrition rates are higher among open-door institutions because these institutions strive to give all individuals a chance to demonstrate educational readiness; some critics have unfairly called them "revolving door" institutions because of that high attrition rate. Most community colleges have open-door admissions.

The majority of private colleges and public universities employ moderately selective admissions criteria. Most applicants are admitted based on the general probability of their success. Such institutions usually enroll many well-qualified students as well as some who are minimally qualified. The majority of students, however, are average to above-average high school students.

Many U.S. colleges and universities are considered to be highly selective and competitive in admissions. Such institutions attract students primarily from the top 10 percent of their high school graduating classes or, in the case of graduate schools, students with 3.00 or better grade averages. Test scores and the quality of previous educational experiences are important. Competitive admissions suggests that the number of qualified applicants exceeds the number of places available, which necessitates the rejection of some or many qualified candidates. Admissions is sometimes competitive for particular curriculums in open-door and moderately selective institutions. In recent years, for example, qualified applicants for nursing, medical technology, physical therapy, pharmacy, and other health-related curriculums were refused admissions to most institutions because of space limitations.

Although the degree of selectivity should never be the sole criterion in the selection of an institution, it can offer some insight into the qualifications possessed by the student populations. Good students tend to attract good instructors who in turn tend to attract financial support from alumni, business, industry, and government. Prestigious institutions, therefore, are those that have three important ingredients: strong instructional staffs, well-qualified students, and adequate funding. A mistake that is frequently made, however, is

to assume that the true quality of an institution is directly related to its earned or assumed prestige. Excellent educational experiences can be had in all recognized institutions and students are advised to use criteria other than prestige in the selection of a college or university.

Testing

It has been repeatedly suggested in this paper that high schools as well as colleges differ widely in academic standards, grading practices, and other measurements of educational performance. Few standard measurements exist. In an educational structure that applies selectivity as an entrance characteristic, there needs to be a standard against which all candidates are compared. In the American educational structure testing assumes that role. Testing may be categorized as follows: (1) external standardized examinations; (2) academic credit by examination; and (3) classroom examinations.

External Standardized Examinations. External examinations are administered to students from early elementary years through the graduate school application process. Elementary and high school examinations are used primarily to place students in appropriate courses and by school districts and states in their various student performance assessment projects. Examples of such tests are the Iowa Tests of Basic Skills, California Tests of Mental Maturity, Henmon-Nelson Test of Mental Ability, Iowa Tests of Educational Development, Wechsler Intelligence Scale for Children, and the Stanford-Binet. These examinations are usually sophisticated and statistically reliable objective instruments that may be administered as frequently as once a year. They are usable as tools for student guidance and counseling but are seldom useful to admissions officers. Although they are national standardized tests, they are often administered by local school officials and scores may be reported in percentiles based on local normative data.

There are several important external tests administered to high school students and used by colleges and universities in the admissions process. Few, if any, institutions of higher education make admissions decisions solely on test scores, but most that employ selective criteria use tests in varying degrees to aid in the prediction of academic success. Even open-door institutions frequently require preadmissions or preenrollment tests for counseling and academic placement purposes.

Although entrance examinations have historically been used in admissions, it has only been since the turn of this century that reliable standardized examinations have been available. The College Entrance Examination Board pioneered standardized tests in the United States and is now one of two major national testing agencies. The College Board offers the Scholastic Aptitude Test (SAT), Achievement Tests in several disciplines, and the Preliminary Scholastic Aptitute Tests/National Merit Qualifying Tests. The American College Testing Program (ACT), the other major testing agency, offers the American College Test Assessment (ACT) as a college admissions instrument. Both the College Board and ACT offer many supplemental services to students and institutions that assist in the admissions and placement processes.

Aptitude and achievement test results are valuable as supplements to school grades, but they are not reliable indicators of educational potential when used alone. High test scores on secure and reliable instruments such as the SAT and the ACT are significant, but low scores are sometimes open to question. Low scores may be the result of low achievement or aptitude or they may be the result or any one or a combination of the following factors: lack of test-taking sophistication; misunderstood test directions; low level of proficiency in English; physical problems, including sight and motor deficiencies; and significant cultural differences that may exist between the normative population and the student tested. The last item is particularly important when evaluating tests taken by low-income students, black and Hispanic students, foreign students, and students from families of recently landed immigrants. While it is recognized that cultural biases may exist in such tests, the results can still be of predictive value for culturally different populations.

Standardized admissions tests, although sometimes controversial, continue to be useful and appropriate measurements of ability when combined with other factors described earlier in this paper. Indeed, these tests actually assist in the democratization of higher education by identifying capable students who may not have performed well in high school, who may have selected commercial or technical instead of college-preparatory courses, or who may have attended small or unaccredited high schools.

Almost everything previously stated about college entrance examinations may be applied to those examinations used for selection to graduate and professional

schools. The most common test used for admission to graduate study is the Graduate Record Examination (GRE). The GRE is required by a very large proportion of the graduate schools. That examination covers most fields leading to the academic master's and the doctor's degrees. Other tests often used for post-baccalaureate admissions include the Graduate Management Admission Test (GMAT), formerly the Admission Test for Graduate Study in Business (ATGSB), the Law School Admissions Test (LSAT), the Medical College Admissions Test (MCAT), and the Miller Analogies Test. All but MCAT (administered by ACT) and the Miller Analogies Test are administered through the services of the Educational Testing Service (ETS) of Princeton, New Jersey, the same agency that administers the College Board testing program.

Because admissions to most graduate and professional schools are highly competitive (the number of qualified applicants exceeds places available), the examinations mentioned in the previous paragraph may be used as screening devices rather than instruments to predict academic success. This is particularly true in professional school admissions practices. As at the undergraduate level, however, factors such as unusually high previous academic performance or other relevant experiences may sometimes offset low examination scores.

External testing agencies (the College Board, ETS, ACT, and others) require fees for the examinations. Furthermore, some institutions require "posting" fees if credits are earned by external examinations and are to be applied to official records.

Credit by Examination. A key feature of undergraduate education in the United States is the practice of awarding academic credit for successful performance on subject examinations. Credit may be awarded on the basis of centrally administered national examinations or by departmental examinations developed and administered internally. The most popular national examinations are those of the Advanced Placement Program (APP) and the College-Level Examination Program (CLEP), both programs of the College Board. Some institutions also give credit and/or exemption from some first-year course requirements for the College Board Achievement Tests and the ACT.

APP is described by the College Board as "a program of curriculum enrichment that begins in high schools that offer college-level studies to able, interested

students."[14] APP develops, administers, and grades examinations in 13 subject areas. Examinations are nationally administered within a specified two- or three-day period in May. According to the College Board approximately 100,000 students in nearly 3,500 high schools sat for the examinations during the May 1976 test dates. In some of the nation's prestigious postsecondary institutions as many as 25 to 50 percent of the incoming students receive APP credit with some students earning sufficient credit to be placed in the second year.

CLEP is similar to APP with added flexibility. It does not require formal course experience as does the APP. It is an appropriate test for students, usually older than typical first-year students, who are self-taught or have learned relevant academic skills on the job, in the military service, or by some other means. CLEP offers two types of tests: General and Subject Examinations. The General Examinations measure college-level achievement in five basic liberal arts areas: English composition, humanities, mathematics, natural sciences, and social sciences-history. Material covered parallels that of general education courses. The 40 Subject Examinations measure achievement in specific college courses. Included among the Subject Examinations are such courses as accounting, calculus, economics, geology, marketing, statistics, and western civilization. In 1975 100,000 CLEP examinations were administered.

There seems to be no consistent national pattern in awarding CLEP credit. Many institutions allow credit for Subject Examinations or General Examinations or both. Standards required for credit, amount of credit awarded, and other policies differ among U.S. institutions.

Most U.S. colleges and universities make available opportunities for credit by examination through locally prepared, administered, and graded examinations. Many of these instruments are patterned after APP, CLEP, and other achievement tests, but most rely on locally established norms. Local tests are often used for placement in a discipline without awarding credit.

Fees ranging from nominal amounts up to the amount assessed for classroom-earned credit are normally required of students. The fees cover the cost of

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14. The College Board Today: A Guide to its Programs and Services, 1976. New York: College Entrance Examination Board, p. 4.

administering the local examination and the posting of credit on the student's permanent record.

Classroom Examinations. The continual assessment of student progress that characterizes American education requires periodic testing by instructors. Tests are used for two primary purposes: (1) to give the instructor tangible evidence of a student's performance in order to award the appropriate mark, or grade, and (2) to give the student an indication of his or her progress as compared to the other students in the class.

Classroom examinations may be given weekly or even more often, or they may be given only two or three times each semester. They may be essay, objective, short-answer, or open-book tests. They are not normally used as screening devices, but they are frequently useful as guidance tools to help students realistically evaluate their educational goals.

Test of English as a Foreign Language. Although it was not the intent of this paper to discuss special foreign student admissions practices, it was felt that English proficiency measurement is important when considering the dimension of accessibility to United States colleges and universities. The Test of English as a Foreign Language (TOEFL) is a test sponsored jointly by the College Board and the Graduate Record Examinations Board and administered by the Educational Testing Service. It is administered four times each year at testing sites throughout most of the world. TOEFL is a reliable and secure instrument that measures a student's listening comprehension, sentence structure, written expression, vocabulary, and reading comprehension. TOEFL is required by both graduate and undergraduate institutions.

CONCLUDING STATEMENT

The quality of American education is best demonstrated by its ability to educate the masses while providing a favorable environment for the intellectual and creative pursuits of academically gifted students. Although many problems remain to be solved, the style and content of American education with its diversity, accessibility, and quality seem to be well suited to the goals of this republic.

GLOSSARY

Accreditation. The process of giving recognition to schools, colleges, and universities that meet certain educational standards.

Admission. Permission to enroll in a college or a university.

Associate's degree. The certificate or diploma awarded, usually by a junior or community college, after two years of college work.

Bachelor's degree. The certificate or diploma awarded after four or five years of college or university work.

Carnegie unit. A measurement of classroom attendance at the secondary-school level. One unit represents one hour per day each academic year or between 180 and 190 hours of classroom contact.

Community colleges. Public-supported two-year colleges offering both transfer and terminal postsecondary course work. Appropriate course work may satisfy the first two years of bachelor's degree and preprofessional program requirements.

Competitive admissions. Policy of granting admissions to only the best of the academically qualified applicants. Less-qualified candidates are rejected because of space limitations.

Consortium. A group of autonomous institutions among which there are agreements to act jointly in regard to common interests such as research, management of facilities, educational programs, sharing of library facilities, etc.

Counties. Governmental units that usually include several communities and surrounding unincorporated areas. The state of Michigan, for example, is made up of more than 80 counties.

Credit hour (semester hour). A measurement of class time. Usually one credit hour represents one hour each week for a semester. Most courses yield between three and five credit hours. Sometimes referred to as "credits," or "hours."

Doctorate. The most advanced academic degree offered in the United States. For a comprehensive description refer to The Doctor of Philosophy Degree published by the Council of Graduate Schools of the United States, One Dupont Circle, Washington, D.C. 20036.

Dropout. A student who leaves school with no intention of returning.

Early Admission. A process whereby some highly qualified secondary school stu-

dents are admitted to institutions of higher education before they complete their secondary school diploma.

Enrollment. Registering for and attending classes.

Grade-point average (GPA). A measurement of the quality of a student's performance. The GPA is determined by dividing the total number of honor points earned by the number of credit hours attempted (for example, 168 honor points divided by 51 credit hours attempted yields a GPA of 3.29). (See Honor points.)

Graduate student. A student who is enrolled in a program leading to a master's or doctorate degree.

High school (secondary school) diploma. The certificate awarded at the completion of high school. The high school diploma does not guarantee admission to a college or university.

Honor points (HP's). The qualitative value given to earned grades in order to create a grade-point average. Values are usually as follows: A = 4 HP's, B = 3 HP's, C = 2 HP's, D = 1 HP, E = 0 HP. For example, six hours of A, four hours of B, two hours of C, and three hours of D ($6 \times 4 + 4 \times 3 + 2 \times 2 + 3 \times 1$) would yield 43 honor points. Therefore, the GPA would be 2.87 ($43 \div 15$). (See Grade-point average.)

Interdisciplinary major. A student's academic program that consists of two or more major subjects.

Junior colleges. Usually private, two-year, postsecondary colleges that offer transfer course work that may satisfy the first two years of bachelor's degree and preprofessional program requirements.

Liberal arts. A bachelor's degree program (in history, literature, chemistry, mathematics, etc.) intended primarily to provide general knowledge. The program usually also satisfies preprofessional program requirements.

Major. The academic discipline, or group disciplines, that constitute the primary emphasis of a student's high school, college, or university program. A major is also known as a field of concentration.

Master's degree. The certificate or diploma awarded after one or more years of work following the bachelor's degree. For a comprehensive description refer to: The Master's Degree: A Policy Statement, published by the Council of Graduate Schools, One Dupont Circle, Washington, D.C. 20036.

Open-door admissions. Admissions granted to all applicants regardless of academic qualifications.

Preenrollment (or enrollment) deposit. A fee, usually $50 or $100, paid in advance of enrollment to ensure a place in the class.

Private institutions. Colleges and universities that receive little or no direct financial support from government sources.

Professional degree. A degree representing satisfactory academic qualifications for professional certification (for example, in the fields of law, medicine, pharmacy, business, nursing, and architecture). For a comprehensive description of professional degrees, refer to The Professional Doctorate published by the Council of Graduate Schools of the United States, One Dupont Circle, Washington, D.C. 20036.

Public institutions. Colleges and universities that receive substantial financial support from local or state governmental sources.

Quarter. An academic period, consisting of about 12 weeks, equal in value to two-thirds of a semester. The calendar year can be divided into four quarters.

Rolling admissions. Procedure in which admissions decisions are made and reported as applications are received.

Selective admissions. Policy of granting admission only to those students who present academic qualifications that suggest at least a reasonable probability of success.

Semester. An academic period usually consisting of between 14 and 18 weeks. One calendar year can be divided into two semesters and a summer session equal to half a semester.

Semester hour. (See Credit hour.)

Special student. An enrolled student who has not been admitted to a degree program.

Stopout. A student who leaves school with the intention of returning after one or more terms.

Trimester. An academic period considered equal in value to a semester. The calendar year can be divided into three trimesters.

Undergraduate student. A student enrolled in a program leading to a bachelor's degree.